

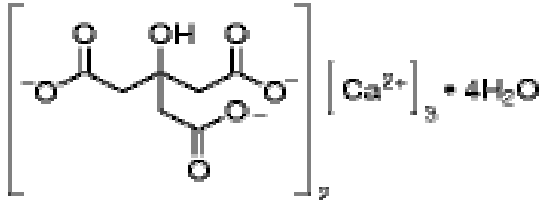
M/S. BIMAL PHARMA PVT. LTD . MUMBAI (INDIA)	FINISHED PRODUCT INFORMATIONS
QUALITY CONTROL AND ASSURANCE	PRODUCT : CALCIUM CITRATE
MSDS no. BPPL 103	SPECIFICATION NO. FP-103

1. **NOMENCLATURE** : Tri Calcium Citrate,
Tetrahydrate.
: 2-Hydroxy – 1,2,3-Propane
Tricarboxylic Acid Calcium
Salt (2:3), Tetrahydrate.

2. **CAS No.** : 5785-44-4

3. **EMPIRICAL FORMULA** : $C_{12}H_{10}O_{14}Ca_3 \cdot 4H_2O$

4. **MOL. WT.** : 570.49

5. **STRUCTURAL FORMULA** : 

6. **DESCRIPTION** : White, Odourless, Crystalline
Powder.

7. **THERAPEUTIC USE** : As an additive in Pharmaceutical,
Food and daily Chemical Industries.
: Used as a Dietary supplement ,
Pharmaceuticals and as a Nutrient.

M/S. BIMAL PHARMA PVT. LTD . MUMBAI (INDIA)	FINISHED PRODUCT PHARMACOPOEIAL SPECIFICATIONS
QUALITY CONTROL AND ASSURANCE	PRODUCT : CALCIUM CITRATE (LR/FCC/USP)
MSDS no. BPPL- 103	SPECIFICATION NO. FP-103

1. **DESCRIPTION** : White, Odourless, Crystalline Powder.
2. **SOLUBILITY** : Slightly soluble in Water;
: Freely soluble in 3N Hydrochloric Acid.
: Insoluble in Ethanol (95%) and Alcohol.
3. **IDENTIFICATION** : **A)** By Reactions of Citrates.
B) BY Reactions of Calcium.
4. **HEAVY METALS** : Max. 0.001 (10 ppm) (FCC)
: Max. 0.002% (20 ppm) (USP / LR)
5. **FLUORIDE (F)** : Max. 0.0003% (3 ppm) (FCC)
: Max. 0.003% (30 ppm) (USP)
6. **ACID –INSOLUBLE SUBSTANCES** : Max. 0.2% (2000 ppm)
(USP/FCC)
7. **ALUMINIUM (Al)** : Max. 0.001% (10 ppm) (FCC)
8. **LEAD (Pb)** : Max. 0.0003% (3 ppm) (FCC)
9. **ARSENIC (As)** : Max. 0.0003% (3 ppm)
(FCC / USP / LR)
10. **SULPHATE (SO₄)** : Max. 0.01% (100 ppm) (LR)

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- 11. CHLORIDE (Cl)** : Max. 0.005% (50 ppm) (LR)
- 12. LOSS ON DRYING**
(At 135°C for 16 hrs.) : Max. 10.0% - 14.0% (USP)
(At 150°C for 4 hrs.) : Max. 10.0% - 13.3% (FCC)
- 13. ORGANIC VOLATILE IMPURITIES** : Shall pass the Test as per USP.
- 14. CALCIUM** : Bet. 20.55 % to 21.18%
(Tetrahydrate)
: Bet. 23.50% to 24.2% (Anhy.)
- 15. ASSAY** : 97.5% - 100.5% (USP / FCC)
(Previously dried at 150°C to constant weight) : Min. 99.0% (LR)
- 16. MICROBIAL LIMIT**
- Total Aerobic Count** : 1000 cfu/g
Total Moulds and Yeasts : 1000 cfu/g
E- Coli : Absent
Salmonella : Absent
- 17. PACKING** : 25 Kgs. LD Polythene Bag
(800 gauge) with double LDPE Liners.
- 18. STORAGE** : To be stored in Clean. Dry warehouse in the original unopened containers.